BISS Biodiversity Information Science and Standards

Biodiversity Information Science and Standards 2: e26323
doi: 10.3897/biss.2.26323

OPEN ACCESS

Conference Abstract

Sustaining Community Data Infrastructures: Challenges and Opportunities with the Scratchpad Virtual Research Environment

Vincent Stuart Smith‡, Ben Scott‡, Laurence Livermore‡, Paul Kiddle‡, Sarah Vincent‡, Matt Woodburn‡

‡ Natural History Museum, London, United Kingdom

Corresponding author: Vincent Stuart Smith (vince@vsmith.info)

Received: 01 May 2018 | Published: 22 May 2018

Citation: Smith V, Scott B, Livermore L, Kiddle P, Vincent S, Woodburn M (2018) Sustaining Community Data Infrastructures: Challenges and Opportunities with the Scratchpad Virtual Research Environment. Biodiversity Information Science and Standards 2: e26323. https://doi.org/10.3897/biss.2.26323

Abstract

Scratchpads are an online Virtual Research Environment (VRE) for biodiversity scientists, allowing anyone to share their data and create their own research networks (http://scratchpads.eu/). In operation since 2007, the platform has supported more than 1,000 communities in their efforts to share, manage and aggregate information on the natural world. Funded through a series of European Commission and United Kingdom research council grants, the platform reached a height of popularity in 2014 with more than 14,500 users, but high levels of usage, coupled with the difficulty of sustaining external funding, led to a significant decline in the quality of service provision and support available to the project. Consequently, the Scratchpads service was closed to new communities in October 2016 and was managed on an essential care and maintenance basis until new permanent funding became available in December 2017. Despite these challenges, the Scratchpad system continues to be used by a loyal community of taxonomists and systematists. As part of our efforts to stabilise the platform and develop a sustainable future for its users, we present our findings from an in-depth analysis of Scratchpad usage metrics and user behaviour. We investigate the growth of the Scratchpads since their inception; how global taxonomic concepts have been generated, used and adapted; the geographical and

© Smith V et al. This is an open access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

taxonomic coverage of Scratchpads; the functionality most popular with users, and those features that failed to gain traction with the community; and finally how aggregated data was used and modified by select user communities. Our presentation examines the challenges of maintaining a complex digital project once funding expires and the initial project team disperses. We conclude with a summary of the Scratchpad software development roadmap based on this quantitative analysis of user behaviour. This is informing the future of the Scratchpads system and identifies how VREs for the biodiversity data community might be developed to provide a more integrated and sustainable solution to the problem of community management for biodiversity data.

Keywords

data infrastructure, community, virtual research environment, sustainability, data publishing, data aggregation, trust

Presenting author

Vincent Stuart Smith